

REMARKS

Enclosed herewith is a Substitute Specification in which the specification as filed has been amended in various places to correct typographical and grammatical errors, and also to add section headings.

In support of the above, enclosed herewith is a copy of the specification as filed marked up accordingly.

The undersigned asserts that no new matter has been incorporated into the Substitute Specification.

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claims 1, 2 and 5 have been cancelled, while new claims 6-8 present a method of reproducing information. Claims 3 and 4 have been amended to now depend from claim 6, and have been amended for clarity.

In the parent application, the Examiner had rejected claims 1-4 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,282,049 to Hatakenaka et al., in that Hatakenaka et al. disclosed dropping all of the B and P pictures which would anticipate the skipping of one or more B pictures.

The Hatakenaka et al. patent discloses moving-picture data digital recording and reproducing apparatuses in which data is recorded in a particular manner for normal and high speed reproduction. In particular, as noted at col. 7, lines 9-28, slices

of data for I-pictures are distributed to each frame on the tape, while data of P- and B-pictures is recorded in the remaining part of the tape on which I-picture data have been recorded. In normal speed reproduction (see col. 7, lines 40-51), the I-, P- and B-picture data are converted to the original sequence, decoded and then supplied to the output. However, in high-speed reproduction (col. 7, lines 52-59), the Hatakenaka et al. apparatus apparently only picks out the appropriate slices of I-pictures from the input data, the particular slices of I-pictures being dependent on the reproduction speed (see col. 7, lines 60-64).

The subject invention is able to perform high-speed and slow-speed (as well as normal speed) reproduction of, for example, an MPEG-encoded video signal which has been recorded for reproduction at only the normal speed. To this end, the subject invention reproduces the recorded video signal at a speed differing from the normal reproduction speed, thereby supplying a sequence of frames at a frame rate differing from the frame rate for the normal reproduction speed. The subject invention then detects the reproduced I-, P- and B-pictures, and then skips (or deletes) one or more of the B-pictures when the reproduction speed is faster than the normal reproduction speed (or alternatively repeats one or more of the B-pictures when the reproduction speed is slower than the normal reproduction speed) such that the resulting frame rate

is at the frame rate for the normal reproduction speed. The resulting video signal is then supplied to a display device.


Applicant submits that the Hatakenaka et al. apparatus skips all of the P- and B-pictures when reproduction is performed at a speed higher than the normal reproduction speed, and then only reproduces some of the slices of the I-pictures. Applicant submits that Hatakenaka et al. neither shows nor suggests determining the frame rate of the information being read, and then skipping one or more B-pictures (or repeating one or more B-pictures) such that the frame rate of the resulting video signal is at the frame rate for the normal reproduction speed.

In the present case, Applicant submits that Hatakenaka et al. neither shows nor suggests skipping (or repeating) one or more B-pictures such that a resultant frame rate is the same as the frame rate for a normal reproduction speed. Rather, Hatakenaka et al. discloses dropping all of the B- and P-pictures, and then reproducing a number of the slices of the I-pictures depending on the reproduction speed.

Further, Applicant submits that Hatakenaka et al. neither shows nor suggests a method of reproduction at a speed less than that of the normal reproduction speed, as is supported by the claims of the subject invention.

Applicant believes that this application, containing claims 3, 4 and 6-8, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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APPENDIX

3. (Amended) ~~A~~The method as claimed in Claim ~~16~~, in which the
record carrier is played with~~moved at~~ a speed which is higher than
the ~~a~~ nominal playback speed, and in which, each time, a first
predetermined number of consecutive frames is ~~transmitted to a~~
5 ~~display apparatus~~supplied to the output, after which a second
predetermined number of consecutive frames ~~is skipped~~are deleted,
the second predetermined number being greater than the first
predetermined number.

4. (Amended) ~~A~~The method as claimed in Claim 3, in which the
first predetermined number of consecutive frames corresponds to an
integral number of Groups of Pictures (GOPs), and in which the
second predetermined number of consecutive frames corresponds to an
5 integral number of GOPs.